

Memorandum

To: Wells, Rocky Reach, and Rock Island HCP
Coordinating Committees

Date: October 24, 2018

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris

Re: Final Minutes of the September 25, 2018 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Coordinating Committees met at the Grant PUD Office in Wenatchee, Washington, on Tuesday, September 25, 2018, from 10:00 to 11:30 a.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

- Douglas PUD will further review run-timing data for wild and hatchery yearling Chinook salmon with regard to Wells Dam bypass operation dates and will report back to the HCP Coordinating Committees (Item I-C).
- Tom Kahler will establish a system to remind the Wells HCP Coordinating Committee to routinely revisit using spring Chinook salmon as the study species for the Wells Project 2030 Survival Verification Study to ensure this is written into the next Section 10 permits for the Wells Project (Item I-C).
- Lance Keller will review subyearling Chinook salmon sampled at the Rocky Reach Juvenile Sampling Facility (RRJSF) during the summer spill season at Rocky Reach Dam, to determine: 1) whether the index samples collected represent overall passage trends based on passive integrated transponder (PIT)-tag detections in the bypass across the season, notably during high flow years such as that experienced in 2018; and 2) whether any adjustments are needed while also maintaining continuity with historical data in the Columbia River Data Access in Real Time database (DART; Item I-C).
- Chelan PUD will compare fish spill coverage data from 2011 and 2012 to data from 2018 and will report back to the HCP Coordinating Committees (Item III-A).
- Chelan PUD will update the draft 2018 HCP Rocky Reach and Rock Island Fish Spill Program Report to report consistent data for Rocky Reach and Rock Island fish spill programs and a more detailed explanation of spill coverage and will provide a revised draft report for HCP Coordinating Committees review (Item III-A). *(Note: Lance Keller provided a revised report to Kristi Geris on October 19, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*
- Lance Keller will provide the test results from the engineered trunnion seals for Rocky Reach Unit C1 as soon as the results are available (Item III-B). *(Note: Keller provided an update to*

Kristi Geris on October 16, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)

- Chelan PUD will provide a final timeline for repairing Rocky Reach Dam Turbine Unit C1 hub seals to Kristi Geris for distribution to the HCP Coordinating Committees (Item III-B).
- Tom Kahler will discuss with Beau Patterson (Douglas PUD Land Use Specialist) the Colville Confederated Tribes (CCT) and the Yakama Nation (YN) comments on the Wells Project Land-Use Permit Application for Wells Tract 115 and will report back to the HCP Coordinating Committees (Item IV-A).
- Kristi Geris will notify Tracy Hillman (HCP Hatchery Committees Chairman), Denny Rohr (Priest Rapids Coordinating Committee [PRCC] Facilitator), and Grant PUD office building staff that the HCP Coordinating Committees meeting in December 2018 will be held via conference call on December 18, 2018, if needed (Item V-A). *(Note: Geris provided this notification, as discussed.)*
- The HCP Coordinating Committees meeting on October 23, 2018, will be held **in-person** at the Grant PUD Wenatchee Office in Wenatchee, Washington (Item V-A).

Decision Summary

- There were no HCP Decision Items approved during today's meeting.

Agreements

- There were no HCP Agreements discussed during today's meeting.

Review Items

- The draft 2018 HCP Rocky Reach and Rock Island Fish Spill Program Report for review was distributed to the HCP Coordinating Committees by Kristi Geris on September 24, 2018 (Item III-A). *(Note: Lance Keller provided a revised report to Geris on October 19, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*
- The draft 2020 Wells Project Survival Verification Study Plan was distributed to the HCP Coordinating Committees by Kristi Geris on September 24, 2018. The draft plan is available for a 63-day review with edits and comments due to Tom Kahler by Tuesday, November 27, 2018 (Item IV-B).
- A Douglas PUD Spill Prevention Control and Counter Measures (SPCC) Plan was distributed to the HCP Coordinating Committees by Kristi Geris on October 3, 2018. This plan is available for a 30-day review with edits and comments due to Tom Kahler by Friday, November 2, 2018.

Finalized Documents

- There are no documents that have been recently finalized.

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the HCP Coordinating Committees and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. Lance Keller said Chelan PUD has no additions; however, he requested discussing Chelan PUD items first due to time constraints in the afternoon. Tom Kahler said Douglas PUD has no issues with this request and the agenda was rearranged.

B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft August 28, 2018 meeting minutes. Kristi Geris said all comments and revisions received from members of the HCP Coordinating Committees were incorporated into the revised minutes. HCP Coordinating Committees members present approved the August 28, 2018 meeting minutes, as revised.

C. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees meeting on August 28, 2018, and follow-up discussions, were as follows. (*Note: italicized text corresponds to agenda items from the conference call on August 28, 2018*):

- *Douglas PUD will further review run-timing data for wild and hatchery yearling Chinook salmon with regard to Wells Dam bypass operation dates and will report back to the HCP Coordinating Committees (Item I-C).*
Tom Kahler said run-timing data for wild yearling Chinook salmon has been reviewed; however, data for hatchery yearling Chinook salmon has not. Kahler said he hopes to report these data during the HCP Coordinating Committees meeting on October 23, 2018. This action item will be carried forward.
- *Chelan PUD will provide a final timeline for repairing Rocky Reach Dam Turbine Unit C1 hub seals to Kristi Geris for distribution to the HCP Coordinating Committees (Item I-C).*
This will be discussed during today's meeting.
- *Tom Kahler will establish a system to remind the Wells HCP Coordinating Committee to routinely revisit using spring Chinook salmon as the study species for the Wells Project 2030 Survival Verification Study to ensure this is written into the next Section 10 permits for the Wells Project (Item I-C).*

Kahler said he and Andrew Gingerich plan to establish a reminder system on the Douglas PUD internal SharePoint site. This action item will be carried forward.

- *Lance Keller will review subyearling Chinook salmon sampled at the RRJSF during the summer spill season at Rocky Reach Dam, to determine: 1) whether the index samples collected represent overall passage trends based on PIT-tag detections in the bypass across the season, notably during high flow years such as that experienced in 2018; and 2) whether any adjustments are needed while also maintaining continuity with historical data in DART (Item III-A).*

This action item will be carried forward.

II. HCP Tributary and Hatchery Committees Update

A. HCP Tributary and Hatchery Committees Update (Tracy Hillman)

Tracy Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Tributary Committees meeting on September 13, 2018:

- *Time Extension Request:* The Rock Island HCP Tributary Committee received a time extension request from Cascade Columbia Fisheries Enhancement Group on the Derby Creek Fish Passage Project. The sponsor is waiting for Washington Department of Fish and Wildlife (WDFW) to finish the 60% design; therefore, the sponsor requested to extend the completion date from December 31, 2018 to December 1, 2019. The Rock Island HCP Tributary Committee approved the time extension request.
- *Targeted Solicitations:* The HCP Tributary Committees discussed identifying high-priority projects within each of the subbasins (Wenatchee, Entiat, Methow, and Okanogan) and calling for proposals. This is similar to the Bonneville Power Administration's Targeted Solicitation Process. Although the HCP Tributary Committees will continue to accept project applications from sponsors anytime throughout the year, the HCP Tributary Committees would like to take a more active role in identifying and funding targeted projects within each subbasin. Therefore, members will start identifying priority projects within each subbasin for discussion during the next HCP Tributary Committees meeting. John Ferguson asked what precipitated change in approach? Hillman said there were several things. He said the HCP Tributary Committees have been receiving and reviewing quite a few proposals that ultimately are not funded because they lack biological benefit, the proposals are not meeting requirements of the HCPs, or are too expensive for the anticipated benefit. Hillman said the HCP Tributary Committees think it may be better to identify projects themselves instead of waiting to receive projects with limited biological benefit. He said the HCP Tributary Committees want to be sure a project has high biological benefit and is cost-effective.
- *Site Visits:* The HCP Tributary Committees discussed the need to start visiting completed projects. The HCP Tributary Committees are currently reviewing the list of completed projects

in each subbasin and will identify those to visit on October 11, 2018 (the date of the next HCP Tributary Committees meeting). Hillman said the HCP Tributary Committees would like to see what has been accomplished with HCP Tributary Committees funds over the past few years.

- *Next Meeting:* The next meeting of the HCP Tributary Committees will be on October 11, 2018.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on September 19, 2018 (note: joint HCP Hatchery Committees/PRCC Hatchery Subcommittee items are noted by "joint"):

- *Egg Incubation Treatment Study:* Douglas PUD provided the Wells HCP Hatchery Committee with an updated plan to examine the efficacy of hydrogen peroxide and salt in controlling *Saprolegnia spp.* infestations during salmonid egg incubation under hatchery conditions at the Methow Fish Hatchery. The study will compare Formalin, the chemical traditionally used for prophylactic management of *Saprolegnia spp.*, with hydrogen peroxide, salt, and no treatment (control) on the growth of *Saprolegnia spp.* on summer Chinook salmon eggs. Formalin has long been associated with worker safety and environmental hazards and according to Dr. Betsy Bamberger (Douglas PUD Fish Health Specialist), using Formalin may be met with increasing scrutiny by regulatory agencies. Therefore, this study will determine the effectiveness of alternatives to Formalin that can be used as safe therapeutic substitutes at the hatchery. The Wells HCP Hatchery Committee approved the study, which will begin fall 2018.
- *2018 Chiwawa Broodstock Collection Summary:* WDFW reported an issue with collection of natural-origin spring Chinook salmon broodstock at the Chiwawa Weir. All broodstock collected at the weir are supposed to be natural-origin fish (adipose [ad]-present and no coded wire tag [CWT]). However, several of the adult Chinook salmon collected at the weir in 2018 were hatchery-origin fish (ad-present with CWTs). Somehow the CWTs were not detected during collection (false negatives); therefore, the program ended up with 31 natural-origin fish, which is less than the target of 76 natural-origin fish. Nevertheless, the program was able to meet its broodstock collection goal by backfilling with hatchery-origin fish. WDFW is working with Chelan PUD on ways to prevent this from happening in the future.
- *Genetic Monitoring (joint):* The HCP Hatchery Committees developed a list of genetics experts and four of the five genetics experts participated in the HCP Hatchery Committees meeting on September 19, 2018. The HCP Hatchery Committees described the purpose of the expert panel, which is to help the HCP Hatchery Committees develop a robust genetics monitoring plan, and then reviewed the specific questions the HCP Hatchery Committees have for the geneticists. The geneticists requested additional information, which Hillman will provide. The geneticists will work on answering the questions and report back to the HCP Hatchery Committees in November 2018.

- *NMFS Consultation (joint)*: The Environmental Assessment (EA) for the unlisted programs (summer/fall Chinook salmon for Wells, Methow, Chelan Falls, Dryden, and Priest Rapids) is nearly complete. General Counsel is currently reviewing the EA. After the review is complete, the EA will go to the HCP Hatchery Committees for review, and then to the public for review.
- *Chief Joseph Hatchery Update (joint)*: Kirk Truscott reported good news and bad news. The good news is that to date, very few summer Chinook salmon broodstock have died. Summer Chinook salmon were inoculated for Columnaris. The bad news is that a significant loss of spring Chinook salmon broodstock occurred this year. About 66% of the spring Chinook salmon broodstock were lost, resulting in a shortage of about 350,000 eyed eggs (50% of the 700,000 eyed-egg goal). The reason for the loss remains unknown. There was no apparent bacterial disease; although, fish were heavily infected with copepods. Managers are waiting for virology results. Hillman asked if Truscott has any further updates on this, and Truscott said he has not yet received the virology report. Ferguson asked when the report can be expected, and Truscott said the Chief Joseph Hatchery Manager contacted WDFW this morning asking about the report.
- *Next Meeting*: The next meeting of the HCP Hatchery Committees will be on October 17, 2018.

III. Chelan PUD

A. 2018 Rocky Reach and Rock Island Fish Spill Report (Lance Keller and Thad Mosey)

Lance Keller introduced Thad Mosey (Chelan PUD Senior Fisheries Biologist) who manages the Rocky Reach and Rock Island fish spill programs. Keller said Mosey compiled the draft 2018 HCP Rocky Reach and Rock Island Fish Spill Program Report (Attachment B), which was distributed to the HCP Coordinating Committees by Kristi Geris on September 24, 2018.

2018 Rock Island Spring Fish Spill

Mosey reviewed page 2 of Attachment B. He said the target species include yearling Chinook salmon, steelhead, and sockeye salmon. He said the requirement is to spill 10% of the daily average river flow. He said spill started on April 17, 2018, at 0001 hours and ended on May 24, 2018, at 2400 hours. He said the percent of run with spill was filled covering 99.8% for yearling Chinook salmon, 99.9% for steelhead, and 99.2% for sockeye salmon (combined spring and summer fish spill). He said as of August 31, 2018, the cumulative index counts included 49,702 yearling Chinook salmon, 24,731 steelhead, and 76,245 sockeye salmon. He said the spring spill percentage was 40.44%, which comprised 9.76% fish spill and 30.68% forced spill. He said the average river flow at Rock Island Dam was about 249,000 cubic feet per second (249 kcfs), and the average spill was about 100 kcfs. He said there were 38 total spill days.

Mosey said as background information, the bypass was opened on April 1, 2018. He said the first sockeye salmon, yearling Chinook salmon, and steelhead were observed on April 7, April 2, and April 4, 2018, respectively. He said through April 16, 2018, the daily Chinook salmon and steelhead numbers were 20 and 11 fish or less, respectively. He said sockeye salmon were the first to reach 100 fish daily. He said on April 14, 2018, there were 106 sockeye salmon counted which was the driver to start fish spill at Rock Island Dam. He said on Friday, April 13, 2018, DART indicated 0.6% of the sockeye salmon run had passed Rock Island Dam. He explained that during the fish spill season data are reviewed on a Friday for execution of action the following Tuesday. He said based on review of the numbers on April 13, 2018, he was confident to initiate spring fish spill on April 17, 2018. He said if numbers drastically changed, he would have initiated spill sooner. He said from April 1 to 16, 2018, the cumulative sockeye salmon passage at Rock Island Dam was estimated to be 2.7%, which further confirmed April 17, 2018, as a proper start spill date. He said 5% passage was ultimately achieved on April 23, 2018, for sockeye and Chinook salmon, and on April 21, 2018, for steelhead.

2018 Rock Island Summer Fish Spill

Mosey reviewed page 3 of Attachment B. He said the summer spill target percentage at Rock Island Dam is 20% of the daily average river flow. He said spill started on May 25, 2018, at 0001 hours and ended on August 14, 2018, at 2400 hours. He said the 95% estimated passage date was July 31, 2018. He said spill coverage was provided for 99.3% of the subyearling run. He said the cumulative index count was around 27,500 fish. He said the summer spill percentage was 26% with fish and forced spill. He said the average river flow at Rock Island Dam was about 154 kcfs and the average spill was about 40 kcfs. He said total spill days were 82.

2018 Rocky Reach Summer Fish Spill

Mosey said hydraulic spill at Rocky Reach Dam had been ongoing since late April 2018. He said on May 12, 2018, Rocky Reach Dam was spilling as much as 50% of the total river flow due to hydraulic capacity of the dam. He said around mid-May 2018, he was coordinating with Chief Joseph Fish Hatchery about release dates for hatchery fish. He said on May 15, 2018, the first subyearlings were counted at Rocky Reach Dam and by May 23, 2018, about 0.5% of the subyearling run had passed Rocky Reach Dam. He said on May 24, 2018, about 1% of the subyearling run had passed; therefore, on May 25, 2018, summer spill was initiated at Rocky Reach Dam.

Mosey reviewed page 1 of Attachment B. He said the summer spill target percentage at Rocky Reach Dam is 9% of the daily average river flow. He said spill started on May 25, 2018, at 0001 hours and ended on August 6, 2018, at 2400 hours. He said the 95% estimated passage date was July 28, 2018. He said spill coverage was provided for 94.1% of the run, with a designated fish spill cumulative count of around 9,000 subyearlings. He said the summer spill percentage was 22.29%, which

comprised 9.14% fish spill and 13.15% forced spill. He said the average river flow from May 25 to August 6, 2018, was about 155 kcfs, with a total of 74 spill days.

Mosey said regarding the 94.1% spill coverage, spill and fish numbers were watched closely in late July 2018 as numbers started dropping off for subyearlings. He said on July 24, 2018, the daily index counts began dropping below 0.3% of the cumulative index counts, and in early August 2018, DART estimated that 95% of the juvenile subyearling Chinook salmon run had passed the project. He said on Friday, August 3, 2018, the data showed no indication of change; therefore, the decision was made to end spill on Monday, August 6, 2018. He said after August 3, 2018, over the next 10 days there was a slight uptick in subyearling numbers. He said although counts remained at or below 0.3% of the cumulative index counts, he had not anticipated these days of higher numbers. He said additionally, DART predicted that 20,000 subyearlings would be collected and only 9,000 were ultimately collected, resulting in a small sample size. Mosey said if passage provided during the ongoing hydraulic spill at Rocky Reach Dam prior to the start of summer spill on May 25, 2018, is combined with the official "fish spill" dates, this would mean fish spill coverage was provided for more than 95% of the subyearling run.

John Ferguson asked if the green line on page 1 of Attachment B represents forced spill. Keller said this is correct, the green line is intended to note the hydraulic spill before requesting the start of fish spill. He added that he wanted to illustrate spill was occurring before the "fish spill start date" was requested. He said Rocky Reach Dam was not spilling water any differently before the fish spill start date; rather, there is just an internal accounting difference. He said continuous spill started around May 6, 2018, at 1445 hours.

Ferguson asked what the spill coverage would be for subyearlings if the hydraulic spill was included in the estimate by DART. Mosey said spill coverage for subyearlings would be 96.85% if calculated from when subyearlings were first collected at Rocky Reach Dam until the spill stop date of August 6, 2018. Ferguson said the question is then, does Chelan PUD report to the Federal Energy Regulatory Commission (FERC) spill coverage for 94.1% of the subyearling run during the "spill season," when the biological reality is, with forced hydraulic spill, coverage was really provided for 96.85% of the subyearling run. Keller said Chelan PUD reports these data to FERC via the HCP Coordinating Committees meeting minutes and HCP annual reports, and he believes the discussion has been framed well.

Ferguson asked if this has happened before, and Keller said this is a unique situation. Keller said 2018 was a high-water year, Rocky Reach Dam had slightly diminished powerhouse capacity, and there was a very small cumulative sample size. He said as new data are added to DART, the program is constantly updating the run estimate. He said all data indicated criteria were met and coverage was

provided via spill; however, with the index counts being so low, ultimately there was larger volatility in the DART estimates.

Jim Craig asked if there was anything unusual about the season that may have caused this uptick in fish in early August 2018. Keller said he was unable to identify anything environmentally or operationally that may have caused this uptick.

Kirk Truscott suggested updating this draft report to more clearly describe the percentage of run with fish spill versus the percentage of run with forced and fish spill. He also asked how this was handled in 2011 and 2012 (other high-water years). Keller said he does not recall encountering this issue in those years. He said he believes spill coverage was provided above and beyond. He said, however, to verify, Chelan PUD will review fish spill coverage data from 2011 and 2012 compared to data from 2018 and will report back to the HCP Coordinating Committees.

Ferguson suggested making Truscott's same Rocky Reach Dam revisions to the Rock Island Dam data for consistency. Keller said Chelan PUD can make these revisions. Ferguson noted the trend of early runoff in recent years and suggested structuring future fish spill reports in the same fashion (i.e., describing both percentage of run with fish spill versus the percentage of run with forced and fish spill). Truscott said the CCT do not have an issue with structuring future reports in this way; however, he also does not want to get into a situation where fish spill is terminated sooner because managers are relying on hydraulic spill prior to summer fish spill to make up the 95% coverage. Keller agreed and said Chelan PUD agreed to implement and follow the Final 2018 Rock Island and Rocky Reach Fish Spill Plan, as approved by the Rock Island and Rocky Reach HCP Coordinating Committees (on March 27, 2018). Truscott said he does not want to lose protection on the back end because it was provided on the front end. Keller assured Truscott that the Final 2018 Rock Island and Rocky Reach Fish Spill Plan includes criteria for both. Keller said management decisions are based on fish handled, current trends and passage rates, and data in-hand.

Keely Murdoch asked if this distinction between fish spill and combined hydraulic and fish spill can be shown graphically? Keller said this can be shown with two separate lines and maybe a footnote providing clarification. Chelan PUD will update the draft 2018 HCP Rocky Reach and Rock Island Fish Spill Program Report to report consistent data for Rocky Reach and Rock Island fish spill programs and a more detailed explanation of spill coverage and will provide a revised draft report for HCP Coordinating Committees review. *(Note: Keller provided a revised report to Geris on October 19, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*

Keller thanked Mosey for following the spill season so closely and examining all data to provide adequate spill coverage throughout the season. Keller said this is a complicated process and Mosey executes it well.

B. Rocky Reach Unit C1 Update (Lance Keller)

Lance Keller said the engineered trunnion seals arrived from Germany last week. Keller said the mechanic crew installed the new seal in Unit C1 and is now testing the seal, and the superintendent indicated the test results should be available within 1 week. Keller said he will provide the test results from the engineered trunnion seals for Rocky Reach Unit C1 as soon as the results are available. He said testing involves installing the new seal, filling the hub with oil, actuating the blades up and down while looking for leaks, and pressurizing the hubs while looking for leaks. *(Note: Keller provided an update to Kristi Geris on October 16, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*

Kirk Truscott asked what "Plan B" is if the engineered seal does not work? Keller said Chelan PUD is already discussing this. He said he hopes the seal works and if it does not, he will bring Plan B to the HCP Coordinating Committees next month. He said the 2019 bypass season is quickly approaching, and Chelan PUD is well-aware this fix needs to happen soon.

Keely Murdoch asked if this is the first time this has happened? Keller said yes, that the only other time Unit C1 and Unit C2 were out of service for the bypass season was due to issues with the wedge carriers which resulted in the units being down for part of a summer.

John Ferguson asked if Chelan PUD is ready to provide a final timeline for repairing Rocky Reach Dam Turbine Unit C1 hub seals? Keller asked to carry this action item forward.

C. Rock Island Powerhouse 1 Maintenance Update (Lance Keller)

Lance Keller reported that scheduling staff are continuing drafting reiterations of outage schedules trying to determine what works best with the new guidelines for minimum unit outages to allow more workspace while addressing workload and safety concerns. He said the issues with Unit B6 and Unit B9 appear to be the same and can hopefully be resolved together. He recalled that Chelan PUD has an agreement with Andritz Hydro. He said there have been multiple meetings and discussions to determine what went wrong and how, and a decision was finally reached to continue moving forward with Andritz Hydro. Keller said this agenda item will be reoccurring as the maintenance continues and he will keep the HCP Coordinating Committees updated on schedule as it becomes available.

IV. Douglas PUD

A. DECISION: Wells Project Land-Use Permit Application for Wells Tract 115 (Tom Kahler)

Tom Kahler recalled that a Wells Project Land-Use Permit Application for Wells Tract 115 was distributed to the HCP Coordinating Committees by Kristi Geris on July 21, 2018. Kahler said after discussing the application during the HCP Coordinating Committees meeting on August 28, 2018, he discussed

Wells HCP Coordinating Committee comments with Beau Patterson and provided a response to these comments via email on August 29, 2018 (Attachment C). Kahler asked the Wells HCP Coordinating Committee if Patterson's response adequately addressed the outstanding questions.

Kirk Truscott said the CCT are more comfortable with the application knowing that Douglas PUD is conducting the spraying as opposed to the landowner. Keely Murdoch noted that the landowner is still mowing and raking, yet the application also mentions allowing the natural succession of vegetation to proceed and mowing and raking seems counterproductive to natural succession. Truscott agreed noting that both of these are ground-disturbing activities that allow for more noxious weeds. He proposed instead, that Douglas PUD sprays for apple shoots and noxious weeds as opposed to mowing and raking. Kahler agreed mowing weeds reduces seed production, but also does so for native plants. Truscott asked about the landscape in the proposed area. Kahler said there is a ton of thistle and upland grass. Murdoch agreed with Truscott's suggestion for spraying over raking and mowing.

Kahler summarized that some Wells HCP Coordinating Committee representatives provided indication of no comment, while some provided comments. He said he will discuss with Patterson the CCT and the YN comments on the Wells Project Land-Use Permit Application for Wells Tract 115 and will report back to the HCP Coordinating Committees.

B. Douglas PUD 2020 Verification Survival Study Plan (Tom Kahler)

Tom Kahler said a draft 2020 Wells Project Survival Verification Study Plan (Attachment D) was distributed to the HCP Coordinating Committees by Kristi Geris on September 24, 2018. Kahler said this study plan is essentially the same study plan Douglas PUD has implemented since 1998 (used in each successive study since 1998).

Kahler reviewed Attachment D. He said the details of each verification survival study conducted by Douglas PUD are included in this plan. He said key components that have changed from past plans are the sample sizes and release numbers, which are based on current estimates by Drs. John Skalski and Richard Townsend (Columbia Basin Research). Kahler said the study needs to maintain the same density in each vessel (i.e., there cannot be 1.5 containers), and each release location will have a predetermined number of full containers (556 fish per container). He said the various formulas describing model calculations are the same and the release locations are the same. He said the target is to have a minimum of 100,000 PIT-tagged yearling Chinook salmon to achieve the estimated level of precision for the study. He recalled in the previous study in 2010, there were just under the target amount of study fish planned but precision targets were still met. He said there is concern with having a river flow year similar to 2018, which could affect PIT detections. He said release numbers are described on page 3 of Attachment D. He said the releases are staggered in time so the fish for each release mix as they migrate downstream through the PIT detection stations.

He said in this way each replicate is subjected to the same river influences and same detection probability. He said page 13 of Attachment D (Section 3.4) describes the assumptions, all of which are standard procedure for a paired release and are necessary to validate the study. He said page 16 of Attachment D (Section 3.5) describes anticipated precision, which includes a graph from Skalski's report that was distributed to the HCP Coordinating Committees earlier in 2018 (*Sample Size Calculations for a 2020 Check-In Study of Project Passage Survival at Wells Dam* [Skalski and Townsend 2018], final distributed April 13, 2018).

Kahler said this plan is available for a 60-day review period. He said this should be ample time to formulate questions and discuss these at future meetings. John Ferguson suggested further discussing this plan during the HCP Coordinating Committees meetings on October 23, 2018, and November 27, 2018; therefore, adjusting the review period to a 63-day review with edits and comments due to Kahler by Tuesday, November 27, 2018. (*Note: the HCP Coordinating Committees meeting on November 27, 2018 was subsequently rescheduled to December 4, 2018.*)

Kirk Truscott said, as he has commented in the past, the release locations in the tributaries do not account for full project effects. He recalled the response he has received that there is a need to maintain the same release locations as past studies for comparability. He said he does not agree with this. Kahler said the release locations are stipulated in the Wells HCP.

Ferguson said Figure 1 in Attachment D shows the release locations and he asked where exactly were the locations before? Kahler said in the same locations and added that this is the same figure used for past studies. He said fish are loaded into containers and onto barges and released in the tailrace. He said the same is true for the mouths of the Methow and Okanogan rivers. He said fish are also trucked the same amount of time regardless of release location. He said at Wells Dam, six containers are released in the tailrace. He said the containers are opened sequentially one at a time as the barge moves across the tailrace as close to the dam as safely possible given the tailrace conditions on any given release date.

V. HCP Administration

A. Next Meetings (John Ferguson)

The next scheduled HCP Coordinating Committees meeting is on October 23, 2018, to be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.

John Ferguson recalled about 1 year ago, he received a phone call from Melody Kreimes (Executive Director for Upper Columbia Salmon Recovery Board [UCSRB]) and Greer Maier (Science Program Manager for UCSRB) provided an update to the HCP Coordinating Committees on the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan, notably the recovery strategies integrated

across all four Hs (habitat, harvest, hydropower, and hatcheries). Ferguson recalled at that time, work was wrapping up on the draft UCSRB Hatchery Background Summary and starting on the draft UCSRB Hydropower Background Summary. Ferguson said Kreimes recently contacted him notifying him the draft UCSRB Hydropower Background Summary will be completed in early October 2018 and asked that Maier be scheduled to present an update on the Hydropower Background Summary. Ferguson said Maier is tentatively scheduled to present the summary during the HCP Coordinating Committees meeting on October 23, 2018, if time allows.

Kristi Geris noted that the regularly scheduled HCP Coordinating Committees meeting in December 2018 lands on the Christmas holiday this year. The HCP Coordinating Committees agreed to move the meeting up 1 week to Tuesday, December 18, 2018, to be convened via conference call, if needed. Geris said she will notify Tracy Hillman (HCP Hatchery Committees Chairman), Denny Rohr (PRCC Facilitator), and Grant PUD office building staff that the HCP Coordinating Committees meeting in December 2018 will be held via conference call on December 18, 2018, if needed. *(Note: Geris provided this notification, as discussed.)*

The November 27, 2018 meeting will be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington, and the December 18, 2018 meeting will be held by conference call, if needed. *(Note: the HCP Coordinating Committees meeting on November 27, 2018, was subsequently rescheduled to December 4, 2018, to accommodate attendance to the annual U.S. Army Corps of Engineers Anadromous Fish Evaluation Program conference in Portland, Oregon, from November 27 to 28, 2018.)*

VI. List of Attachments

Attachment A List of Attendees

Attachment B Draft 2018 HCP Rocky Reach and Rock Island Fish Spill Program Report

Attachment C Wells Project Land-Use Permit Application for Wells Tract 115 – response to comments

Attachment D Draft 2020 Wells Project Survival Verification Study Plan

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman ^{††}	BioAnalysts
Lance Keller [*]	Chelan PUD
Thad Mosey	Chelan PUD
Tom Kahler [*]	Douglas PUD
Andrew Gingerich [*]	Douglas PUD
Scott Carlon ^{*†}	National Marine Fisheries Service
Jim Craig [*]	U.S. Fish and Wildlife Service
Chad Jackson ^{*†}	Washington Department of Fish and Wildlife
Kirk Truscott [*]	Colville Confederated Tribes
Keely Murdoch [*]	Yakama Nation

Notes:

* Denotes HCP Coordinating Committees member or alternate

† Joined by phone

†† Joined by phone for the HCP Tributary and Hatchery Committees Update